

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the captioned patent application:

Listing of Claims:

1.-28. Canceled

29. (New) An elongate electrode array for use in a cochlear implant, said electrode array comprising electrodes fixedly positioned longitudinally along said length of said electrode array such that, for any and all of said electrodes, there is a space between adjacent electrodes, wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said length of said electrode array.

30. (New) The electrode array of claim 29, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala timpani having an inner wall and an outer wall, and a plurality of spaced auditory receptors positioned along said scala timpani, and wherein said spacing between said adjacent electrodes approximately corresponds with said spacing of auditory receptors on the inner wall of the scala timpani.

31. (New) The electrode array of claim 29, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala timpani having an inner wall and an outer wall, and a plurality of spaced auditory receptors positioned along said scala timpani, and wherein said electrode array is constructed to be positioned proximate to the inner wall of the scala timpani.

32. (New) The electrode array of claim 29, wherein said electrode array has an apical end and a basal end, and wherein said spacing between said adjacent electrodes positioned toward said apical end of said electrode array are less than said spacing between said adjacent electrodes positioned toward said at a basal end of said electrode array.

33. (New) The electrode array of claim 29, wherein said electrode array uses specific frequency bands associated with speech recognition.

34. (New) The electrode array of claim 29, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala tympani having an inner wall and an outer wall, and a plurality of spaced auditory receptors positioned along said scala tympani, and wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said length of said electrode array so as to correspond with spacing of the receptors along the inner wall of the scala tympani.

35. (New) The electrode array of claim 29, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala tympani having an inner wall and an outer wall, and an organ of Corti with a plurality of spaced auditory receptors extending toward the inner wall of the scala tympani, and wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said length of said electrode array so as to correspond with spacing of the receptors along the inner wall of the scala tympani.

36. (New) The electrode array of claim 29, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala tympani having an inner wall and an outer wall, and an organ of Corti with a plurality of spaced auditory receptors extending toward the inner wall of the scala tympani, and wherein said spaces between said adjacent electrodes is determined by a plurality of radially-spaced intercept lines extending from the modiolar center point of the cochlear through a respective plurality of points spaced at equal increments along the organ of Corti.

37. (New) An electrode array for use in a cochlear implant to be implanted in a recipient's cochlear, the cochlear comprising a scala tympani having an inner wall and an outer wall and spaced aural receptors disposed adjacent to the inner wall, the receptors being spaced closer to each other toward the modiolar center of the cochlear, said electrode array comprising electrodes selectively positioned longitudinally along said electrode array

such that, for any and all electrodes of said electrode array, spacing between consecutive electrodes are uniformly graduated from a proximal end to a distal end of the electrode array.

38. (New) The electrode array of claim 37, wherein said spacing between said adjacent electrodes approximately corresponds with said spacing of auditory receptors on the inner wall of the scala timpani.

39. (New) The electrode array of claim 37, wherein said electrode array is constructed to be positioned proximate to the inner wall of the scala timpani.

40. (New) The electrode array of claim 37, wherein said spacing between said adjacent electrodes positioned toward said distal end of said electrode array are less than said spacing between said adjacent electrodes positioned toward said proximal end of said electrode array.

41. (New) The electrode array of claim 37, wherein said electrode array uses specific frequency bands associated with speech recognition.

42. (New) The electrode array of claim 37, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala timpani having an inner wall and an outer wall, and a plurality of spaced auditory receptors positioned along said scala timpani, and wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said length of said electrode array so as to correspond with spacing of the receptors along the inner wall of the scala tympani.

43. (New) The electrode array of claim 37, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala timpani having an inner wall and an outer wall, and an organ of Corti with a plurality of spaced auditory receptors extending toward the inner wall of the scala timpani, and wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said

length of said electrode array so as to correspond with spacing of the receptors along the inner wall of the scala tympani.

44. (New) The electrode array of claim 37, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala timpani having an inner wall and an outer wall, and an organ of Corti with a plurality of spaced auditory receptors extending toward the inner wall of the scala timpani, and wherein said spaces between said adjacent electrodes is determined by a plurality of radially-spaced intercept lines extending from the modiolar center point of the cochlear through a respective plurality of points spaced at equal increments along the organ of Corti.

45. (New) An auditory prosthesis comprising:

an elongate electrode array comprising electrodes fixedly positioned longitudinally along said length of said electrode array such that, for any and all of said electrodes, there is a space between adjacent electrodes, wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said length of said electrode array.

46. (New) The auditory prosthesis of claim 45, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala timpani having an inner wall and an outer wall, and a plurality of spaced auditory receptors positioned along said scala timpani, and wherein said spacing between said adjacent electrodes approximately corresponds with said spacing of auditory receptors on the inner wall of the scala timpani.

47. (New) The auditory prosthesis of claim 45, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala timpani having an inner wall and an outer wall, and a plurality of spaced auditory receptors positioned along said scala timpani, and wherein said electrode array is constructed to be positioned proximate to the inner wall of the scala timpani.

48. (New) The auditory prosthesis of claim 45, wherein said electrode array has an apical end and a basal end, and wherein said spacing between said adjacent electrodes positioned toward said apical end of said electrode array are less than said spacing between said adjacent electrodes positioned toward said at a basal end of said electrode array.

49. (New) The auditory prosthesis claim 45, wherein said electrode array uses specific frequency bands associated with speech recognition.

50. (New) The auditory prosthesis of claim 45, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala tympani having an inner wall and an outer wall, and a plurality of spaced auditory receptors positioned along said scala tympani, and wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said length of said electrode array so as to correspond with spacing of the receptors along the inner wall of the scala tympani.

51. (New) The auditory prosthesis of claim 45, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala tympani having an inner wall and an outer wall, and an organ of Corti with a plurality of spaced auditory receptors extending toward the inner wall of the scala tympani, and wherein said spaces between said adjacent electrodes change in a uniformly graduated manner along said length of said electrode array so as to correspond with spacing of the receptors along the inner wall of the scala tympani.

52. (New) The auditory prosthesis of claim 45, wherein said electrode array is configured to be implanted in a recipient's cochlear, the cochlear comprising a scala tympani having an inner wall and an outer wall, and an organ of Corti with a plurality of spaced auditory receptors extending toward the inner wall of the scala tympani, and wherein said spaces between said adjacent electrodes is determined by a plurality of radially-spaced intercept lines extending from the modiolar center point of the cochlear through a respective plurality of points spaced at equal increments along the organ of Corti.